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EXAMINER	
STULTZ, JESSICA T	
ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/008,837

Applicant(s)

SCHMIDTKE ET AL.

Examiner

Jessica T Stultz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 8-19, and 21-24 is/are rejected.
- 7) ☒ Claim(s) 8 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1201,0603,0904
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-6, 9-11, 14-16, 18, and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis.

Regarding claim 1, Lewis discloses a system for illuminating a target area with a desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein the target area is diffuse reflector “48” which is illuminated by emission source “40” with a desired pattern, Figures 1-2), comprising: means for producing light to illuminate the target area (Column 9, lines 58-61 wherein the means to produce light is emission source “40” which is a light source, Figures 1-2); means for attenuating a portion of the produced light (Column 9, line 7-Column 10, line 37, wherein the attenuating means is slotted disk “14”, which attenuates the emission intensity, Figures 1-2); means for positioning the means for attenuating light in a registration position with respect to the means for producing light (Column 10, lines 11-37, wherein the slotted disk “14” rotates due to interaction with permanent magnet “16” and an external magnetic field, Figures 1-2) so that the attenuated light is blocked from a portion of the target area and the unblocked light illuminates the target area with the desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein an area of diffuse reflector “48” is illuminated by emission source “40” with the unblocked light that passes through the slotted disk “14”, Figures 1-2).

Regarding claim 4, Lewis further discloses that the system include means for focusing light emitted by the means for producing light onto the target area (Column 9, line 7-Column 10, line 37, wherein the top element "37" of inner housing "28", specifically the aperture "36" focusing the light from source "40" to target area "48", Figures 1-2).

Regarding claim 5, Lewis further discloses that the means for attenuating a portion of the produced light is mounted in a registration position on the means for focusing light (Column 9, line 7-Column 19, line 37, wherein the slotted disk "14" is mounted on top element "37" by mounting means "18", Figures 1-2).

Regarding claim 6, Lewis further discloses that the illumination pattern excludes a lower portion of the target area (Column 10, lines 11-37, wherein the lower portion of diffuse reflector "48" is not illuminated, Figures 1-2).

Regarding claim 9, Lewis discloses a system for illuminating a target area with a desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein the target area is diffuse reflector "48" which is illuminated by emission source "40" with a desired pattern, Figures 1-2), comprising: a light source for producing light to illuminate the target area (Column 9, lines 58-61 wherein the means to produce light is emission source "40" which is a light source, Figures 1-2); a light attenuator for blocking a portion of the produced light (Column 9, line 7-Column 10, line 37, wherein the light attenuator is slotted disk "14", which attenuates the emission intensity by blocking a portion of the light, Figures 1-2); a guide for positioning the light attenuator in a registration position with respect to light source (Column 10, lines 11-37, wherein the slotted disk "14" rotates due to interaction with permanent magnet "16" and an external magnetic field, Figures 1-2) so that the a portion of the produced light is blocked from the target area and the

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unblocked light illuminates the target area with the desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein an area of diffuse reflector "48" is illuminated by emission source "40" with the unblocked light that passes through the slotted disk "14", Figures 1-2).

Regarding claim 10, Lewis discloses a system for illuminating a target area with a desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein the target area is diffuse reflector "48" which is illuminated by emission source "40" with a desired pattern, Figures 1-2), comprising: a light attenuator in a registration position with respect to a light source (Column 9, line 7-Column 10, line 37, wherein the light attenuator is slotted disk "14", which attenuates the emission intensity by blocking a portion of the light, Figures 1-2) so that a portion of the light therefrom is blocked from the target area and the unblocked light illuminates the target area with the desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein an area of diffuse reflector "48" is illuminated by emission source "40" with the unblocked light that passes through the slotted disk "14", Figures 1-2).

Regarding claim 11, Lewis discloses a system for illuminating a target area on a data cartridge with a desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein the data cartridge is detector "50" which detects patterned light illuminated on diffuse reflector "48" by emission source "40", Figures 1-2), comprising: a cartridge-engaging assembly positionable adjacent the data cartridge (Column 9, line 7-Column 10, line 37, wherein the cartridge-engaging assembly is inner housing "29", which holds detector "50", Figures 1-2), a light source mounted to the cartridge-engaging assembly (Column 9, lines 7-Column 10, line 39, wherein the means to produce light is emission source "40" which is a light source and is mounted on circuit board "54" which is mounted to housing "29" by "18", Figures 1-2); and a light attenuator mounted to

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the cartridge-engaging assembly (Column 9, line 7-Column 10, line 37, wherein the light attenuator is slotted disk "14", which attenuates the emission intensity by blocking a portion of the light and is mounted on housing "29" by mount "18", Figures 1-2) for blocking a portion of the light emitted by the light source so that unblocked light illuminates the target area with the desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein an area of diffuse reflector "48" is illuminated by emission source "40" which is detected by "50" with the unblocked light that passes through the slotted disk "14", Figures 1-2).

Regarding claim 14, Lewis further discloses registration means for positioning the light attenuator in a registration position with respect to the light source (Column 9, line 7-Column 19, line 37, wherein the slotted disk "14" is held on in a registration position by being mounted on top element "37" by mounting means "18", Figures 1-2).

Regarding claim 15, Lewis further discloses a lens to focus the light emitted from the light source onto the target area (Column 9, line 7-Column 19, line 37, wherein the emission light passes through collimator "52" before hitting the target area, i.e. detector "50", Figures 1-2).

Regarding claim 16, Lewis further discloses that the light attenuator is mounted in a registration position to the lens (Column 9, line 7-Column 19, line 37, wherein light attenuator "14" is mounted by mounting means "18" to circuit board "54" and is in a registration position to collimator "52", Figures 1-2).

Regarding claim 18, Lewis discloses a method for illuminating a target area on a data cartridge with a desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein the data cartridge is detector "50" which detects patterned light illuminated on diffuse reflector "48"

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by emission source "40", Figures 1-2), comprising: positioning a cartridge-engaging assembly adjacent to the data cartridge (Column 9, line 7-Column 10, line 37, wherein the cartridge-engaging assembly is inner housing "29", which holds detector "50", Figures 1-2), emitting light from at least one light source on the cartridge-engaging assembly (Column 9, lines 7-Column 10, line 39, wherein the means to produce light is emission source "40" which is a light source and is mounted on circuit board "54" which is mounted to housing "29" by "18", Figures 1-2); and attenuating a portion of the emitted light (Column 9, line 7-Column 10, line 37, wherein the light attenuator is slotted disk "14", which attenuates the emission intensity by blocking a portion of the light and is mounted on housing "29" by mount "18", Figures 1-2) so that unblocked light illuminates the target area with the desired illumination pattern (Column 9, line 7-Column 10, line 37, wherein an area of diffuse reflector "48" is illuminated by emission source "40" which is detected by detector "50" with the unblocked light that passes through the slotted disk "14", Figures 1-2).

Regarding claim 21, Lewis further discloses attenuating the light reduces the formation of a light tail on the data cartridge (Column 9, line 7-Column 10, line 37, wherein light attenuated by attenuator "14" would reduce the formation of a light tail by blocking portions of the emission light from the detector "50", Figures 1-2).

Regarding claim 22, Lewis further discloses aligning the light-attenuating means with the at least one light source (Column 9, line 7-Column 10, line 37, wherein the light attenuating means "14" are aligned with the light source "40" by mounting means "18", Figures 1-2).

Regarding claim 23, Lewis further discloses providing registration means for aligning the light-attenuating means with the at least one light source (Column 9, line 7-Column 10, line 37,

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wherein the light attenuating means “14” are aligned with the light source “40” by registration mounting means “18”, Figures 1-2).

Regarding claim 24, Lewis further discloses attenuating about one-half of the emitted light (Column 9, line 7-Column 10 line 37, wherein about one-half of the emitted light is attenuated by the attenuator “14” when the disk is rotated to the halfway point on the opening and about half of the slot “22” is blocked, Figures 1-2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis.

Regarding claim 7, Lewis discloses a system for illuminating a target area as shown above, but does not specifically disclose another light source for illuminating another portion of the target area. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add another light source to the system for illuminating another portion of the target area since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F. 2d 669, 124 USPA 378 (CCPA 1960). Nevertheless, Lewis further teaches of moving the location of the light emission source for the purpose of illuminating another area from a different position (Column 13, line 26-Column 14, line 23, wherein the light source “240” is located beside the diffuse



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reflector "248", Figures 5-6, rather than above the diffuse reflector "48" as in Figures 1-2).

Therefore it would have been obvious to one having ordinary skill in the art at time the invention was made to include another light source since Lewis further teaches of moving the location of the light emission source for the purpose of illuminating another area from a different position.

Regarding claim 17, Lewis discloses a system for illuminating a target area as shown above, but does not specifically disclose that the light source is at least one light-emitting diode. Examiner takes judicial notice that it is well known in the art of illumination systems for the light source to be a light emitting diode for the purpose of providing uniform illumination that is affordable and easy to use. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the light source of Lewis to be at least one light-emitting diode since it is well known in the art of illumination systems for the light source to be a light emitting diode for the purpose of providing uniform illumination that is affordable and easy to use.

Regarding claim 19, Lewis discloses a method for illuminating a target area as shown above, but does not specifically disclose a second light source wherein only a portion of the light from the first light source is attenuated. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add another light source to the system for illuminating another portion of the target area since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F. 2d 669, 124 USPA 378 (CCPA 1960). Nevertheless, Lewis further teaches of moving the location of the light emission source for the purpose of illuminating another area from a different position (Column 13, line 26-Column 14, line23, wherein the light

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source "240" is located beside the diffuse reflector "248", Figures 5-6, rather than above the diffuse reflector "48" as in Figures 1-2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include another light source since Lewis further teaches of moving the location of the light emission source for the purpose of illuminating another area from a different position.

Claims 2-3 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis in view of O'Keefe et al.

Regarding claims 2-3 and 12-13, Lewis discloses a system for illuminating a target area as shown above with a variable attenuator, but does not specifically disclose that the attenuator comprises a plurality of L-shaped arms. O'Keefe et al teaches of a variable optical attenuator for attenuating light wherein the attenuator comprises a plurality of L-shaped arms (Column 4, lines 1-38, wherein the variable optical attenuator has L-shaped fingers "32", Figures 2a-b) for the purpose of providing attenuation of light which can be controlled easily and accurately (Column 3, lines 8-15). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the system of Lewis to further include the attenuator comprising a plurality of L-shaped arms since O'Keefe et al teaches of a variable optical attenuator for attenuating light wherein the attenuator comprises a plurality of L-shaped arms for the purpose of providing attenuation of light which can be controlled easily and accurately.

***Allowable Subject Matter***

Claims 8 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is an examiner's statement of reasons for allowable subject matter: none of the prior art alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103.

Specifically regarding claim 8, none of the prior art alone or in combination disclose or teach of a system for illuminating a target area with a desired illumination pattern having two light sources specifically wherein there is no overlap in light emitted from each of the light sources.

Specifically regarding claim 20, none of the prior art alone or in combination disclose or teach of a method for illuminating a target area with a desired illumination pattern having two light sources specifically wherein there is substantially no overlap between the light emitted from the first light source and the light emitted from the second light source.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Craven and Martin et al are cited as having some similar structure to the claimed invention. Lapeyre is cited as evidence of light-emitting diodes used to as a light source in an illumination system.


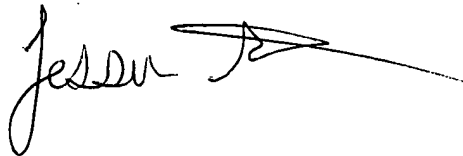
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T Stultz whose telephone number is (571) 272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jessica Stultz  
Patent Examiner  
AU 2873  
December 8, 2004



JORDAN SCHWARTZ  
PRIMARY EXAMINER